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REMARKS

In view of the following discussion, the Applicant submits that none of the claims now pending in the application are non-enabling, anticipated, or obvious under the respective provisions of 35 U.S.C. § 112, §102, and §103. Thus, the Applicant believes that all of these claims are now in allowable form.

It is to be understood that the Applicant, does not acquiesce to the Examiner's characterizations of the art of record or to Applicant's subject matter recited in the pending claims. Further, Applicant is not acquiescing to the Examiner's statements as to the applicability of the prior art of record to the pending claims by filing this Response.

Rejections

Rejections of claims under 35 U.S.C. § 102(a)

Claims 1 - 28 are rejected under 35 U.S.C. §102(a) as being anticipated by the Publication entitled "Scalable Atomic Multicast" (herinafter "SAM-article") authored by Rodrigues, Guerraoui and Schiper. Specifically, the Examiner alleges that SAM-article discloses a method for multicasting data messages to members of the multicast group which includes all the steps of independent claims 1, 7 and 23. The specific details and nature of the rejections can be found at pages 3 – 20 of the Examiner's May 13, 2004 Final Office Action and have been carried forward on pages 4 – 25 of the October 18, 2004 Office Action. As such and for the sake brevity these details are not repeated here. The Applicant continues to respectfully traverse the rejection.

Applicant would like to thank Examiner George Neurauter for providing the Applicant with the opportunity to discuss the merits of the case during the January 12, 2005 telephone interview as the Applicant is aware of the time constraints placed on the Examiner for processing the subject application. This response provides clarifying arguments with respect to as of yet unresolved prosecution issues. Applicant offers that while SAM-article is in the technical field of the subject invention, there are deficiencies in the exact teachings of the reference or the Examiner's interpretation of same that cannot support a finding of anticipation. Case law cited on applicant's prior response is still of record. Applicant's comments are focused on the Examiner's Response to

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Arguments section in the October 18, 2004 Office Action as there are specific aspects and reasons offered by the Examiner for sustaining the anticipation rejection based on SAM-article.

In a first matter, the Examiner indicated that Applicant's argument that SAM-article does not teach assigning a sequence number in response to receiving a plurality of requests (the requests being other than a majority of requests) and the Examiner does not agree that such a distinction from the prior art is patentable. Specifically, the Examiner indicates that the Applicant relies on the variable "k" within the specification as the limitation of "being other than a majority". The Examiner notes that the specification discloses that "k" is defined as "common redundancy requirement" at page 16, line 18. However, the Examiner does not believe that the specification sufficiently discloses what is meant by the phrase "common redundancy requirement" to enable one of ordinary skill in the art to make the invention.

In response, it is respectfully submitted that there is sufficient disclosure so that one of ordinary skill in the art can understand and appreciate what is meant by this phrase. Specifically, at page 16, lines 14-17 it is indicated that,

> "SAM is a robust algorithm providing reliable data message delivery. It can be designed to withstand numerous failures. As with any fault-tolerant system, this is achieved through data replication. Here, we give a brief summary of SAM's data replication provisions discussed above in various contexts."

Accordingly, it is disclosed that SAM (meaning the concept of the subject invention) relies on data replication. Since data replication is required in order for SAM to achieve its objectives, there must be parameter that establishes the requirements for message delivery within a system so designed. This parameter is identified in the subject application as the common redundancy requirement k. Support for such a position is presented at least at page 17, lines 1 to 3, "this ensures that any message that has been assigned a sequence number is <u>replicated</u> at least k times." The amount of data replication "k" is established by how many different data servers k have reported such data (expressed as messages) page 17, lines 1-2. At page 17, lines 15-16 there is a

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comparison of waiting for such messages from only k servers <u>rather than waiting for</u>
<u>messages from all</u> group members in broadcast group. This discloses that the subject
invention need only satisfy the common redundancy requirement parameter k rather
than waiting for all group members to confirm. Further, at lines 17-19, it is disclosed that
highly reliable servers are quite beneficial in that they allow the common redundancy
requirement parameter k to be very small (still in comparison to the number of group
members that would otherwise need to report that messages or data have been
received). Since k governs how many times data replication or redundancy is formed
prior to sequence number assignment, and that k is very small in relation to the number
of messages that would otherwise have to be received from all group members, it is
respectfully submitted that there is sufficient disclosure in the specification to support
the claim language currently existing in the subject application. The specific claim
language in question being that of previously amended claims 1, 7 and 23 that report
that the first quantity of requests being <u>other than a majority</u> of requests in order to
assign a first sequence number.

   Continuing with the Examiner's comments in his Response to Arguments section,
the Examiner offers that it would have been trivial to change the common redundancy
requirement parameter k in order to assign sequence numbers based on a certain
threshold. In response, without additional support this appears to be solely the
Examiner's subjective opinion which should not be used solely to form the basis of a
rejection (for example under the obviousness statute of 103). The Applicant offers that
the establishment of k as a certain threshold is not trivial because all prior art of record
requires that such variable (or other similar variable necessary to perform the same
function) <u>requires</u> a majority of message reporting. The fact that the subject invention
does not require a majority of message reporting to achieve its goals is counter intuitive
to all citations of record. Additionally, since a majority of message reporting is required
in the prior art, it is respectfully submitted that a prior art could not be modified or
otherwise changed in the manner presented and claimed the subject invention without
destroying the functionality of other prior art. Accordingly, it is respectfully submitted
that the Examiner's specific comments in the Response to Arguments section have

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been fully addressed to show that there is adequate support in the application for the claimed language and that such support is readily understood and presented in sufficient detail so that one skilled in the art could make the invention. Moreover, the establishment of k being other than a majority in order for sequence assignment numbering to occur that presents a nontrivial improvement not otherwise seen, described or suggested by any of the cited references.

As such, the Applicants submit that claims 1, 7 and 23 are not anticipated and fully satisfy the requirements under 35 U.S.C. § 102 and are patentable thereunder. Furthermore, claims 2-6, 8-22 and 24-28 depend, either directly or indirectly, from independent claims 1, 7 and 23 and recite additional features thereof. As such, and for at least the same reasons discussed above, the Applicants submit that these dependent claims also fully satisfy the requirements under 35 U.S.C. § 102(a) and are patentable thereunder. Therefore, the Applicants respectfully request that the rejection be withdrawn.

<u>Rejections of claims under 35 U.S.C. § 102(f)</u>

Additionally, the Examiner rejected claims 1-28 under 35 U.S.C. §102(f) because the Applicant did not invent the claimed subject matter. Specifically, the Examiner cites the specification and its relation to SAM-article as evidence regarding this rejection. As shown on page 4 of the specification regarding "Sequencer-site algorithms", the specification and SAM-article have similar, if not exact, disclosures, particularly page 4, lines 15-17 and lines 16-20 of the specification and page 845, right column of SAM-article. Also, page 5 of the specification has similar disclosures regarding "Rotating-token algorithms". Page 6 of the specification has similar disclosures regarding 'Symmetric algorithms". Pages 6 and 7 of the specification have similar disclosures regarding "Chandra and Toueg's algorithm".

In response, the Applicant respectfully submits that <u>each of the Examiner cited portions</u> of the specification are presented <u>in Applicant's background</u> of the Invention section; as such, they do not constitute <u>claimed</u> subject matter. Similarly, it is also noted that the portions of SAM-article that the Examiner has used in an attempt to

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show similar disclosures and a corresponding potential issue of ambiguity in regards to inventorship are shown in the "related work" section of SAM-article. That is, the opening sentence of the first paragraph of the cited section indicates, "we give an overview of other total order algorithms and we compare their scalability and forms characteristics with those of SCALATOM". Accordingly, it is respectfully submitted that SAM-article is comparing their very own SCALATOM algorithm to those works of others. These works of others are identical to those noted in Applicant's background of the invention section. Accordingly, there is absolutely no issue of ambiguity of inventorship, nor is there a true issue under 102(f) because each of the Examiner cited portions of SAM-article have been identified as background works of others and do not constitute claimed subject matter of Applicant's subject invention. Therefore, Applicant submits that claims 1-28 are not anticipated and fully satisfy the requirements under 35 USC §102(f). Therefore the Applicant's respectfully request that the rejection be withdrawn.

Conclusion

The Applicants submit that all of the claims are presently in condition for allowance. Accordingly, both reconsideration of this application and its swift passage to issue are earnestly solicited.

If, however, the Examiner believes that there are any unresolved issues requiring adverse final action in any of the claims now pending in the application, it is requested that the Examiner telephone Mr. Eamon J. Wall at (732) 530-9404 so that appropriate arrangements can be made for resolving such issues as expeditiously as possible.

Respectfully Submitted,
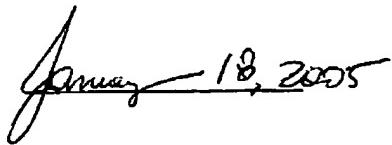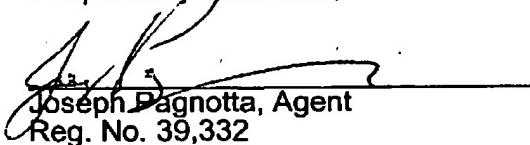
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